WHAT IS CLAIMED IS:

1. A process for shaping and processing pipes, with a plurality of adjustable bending units comprising the following steps:

a) moving the plurality of units freely along the pipes; and

b) performing a plurality of simultaneous bending operations using the adjustable bending units.

2. The process according to claim 1, further comprising the steps of:

a) engaging two end sections of the pipes using one of the plurality of bending units; and

b) applying at least one additional bending unit to the pipe corresponding to a number of further bending operations planned.

3. The process as in claim 1, wherein said outer bending units move towards each other longitudinally wherein said inner bending units move apart from each other laterally.

4. The process as in claim 1, further comprising the steps of:

providing a plurality of profiled rollers; and

bending a piece of material using said plurality of profiled rollers.

5. The process as in claim 4, wherein said step of providing a plurality of profiled rollers includes providing profiled double rollers between a piece of material that requires bending.

6. The process as in claim 4, wherein said step of providing a plurality of profiled rollers includes at least two outer bending units having gripping pliers.

7. The process as in claim 6, wherein said gripping pliers are profiled.

8. The process as in claim 1, further comprising the step of:

pressing a plurality of sealing nipples axially into two end sections of a piece of pipe shaped material that are being held by said bending units or said gripping pliers.

9. The process as in claim 8 wherein said step of pressing said sealing nipples into said end sections comprises expanding said end sections by about 45□ to create a flange.

10. The process as in claim 1, further comprising the step of heating said material to bend said material.

11. The process as in claim 10, wherein said heating step is before said bending step.

12. The process as in claim 10, wherein said heating step is during said bending step.

13. The process as in claim 10, wherein said heating step is after said bending step.

14. The process as in claim 10, wherein said heating step includes heating the material into a thermoplastic range.

15. The process as in claim 10, wherein said heating step includes using a radiation heater.

16. The process as in claim 15, wherein said heating step includes using an infrared heater.

17. The process as in claim 10, said heating step includes channeling steam through a pipe section to heat the material.

18. The process as in claim 10, wherein said heating step includes using hot air to heat up the plastic pipe section.

19. The process as in claim 18, wherein said heating step includes pressurizing the hot air in the pipe section.

20. The process as in claim 19, wherein said hot air is left in said pipe section under pressure.

21. The process as in claim 20, further comprising the step of cooling the piece of material after the bending and heating operations have been completed.

22. The process as in claim 20, further comprising the step of forcing cold water through the pipe section for cooling purposes.

23. The process as in claim 1, further comprising the step of pressurizing the pipe section internally during the bending operation.

24. The process as in claim 1, wherein the cross section of the pipe section is stabilized during the bending operation via an insertion of a flexible core.

25. A device for shaping and processing pipes, by performing a plurality of simultaneous bending operations, the device comprising:

a) a plurality of bending units; and

b) at least one carriage assembly for supporting said plurality of bending units, wherein said carriage assembly is mobile and can move along the pipes during the shaping process.

26. The device as in claim 25, further comprising at least two adjacent tracks coupled to said carriage assembly.

27. The device as in claim 25, wherein said bending units further comprise a plurality of bending cores that have different bending raises and different groove sizes.

28. The device as in claim 25, wherein said bending units are designed as robots, wherein said robots are capable of removing a tool that is needed at any time from a magazine.

29. The device as in claim 25, further comprising a control unit, coupled to said bending units said control unit for controlling and setting a plurality of bending parameters for said pipes.

30. The device as in claim 29, wherein said plurality of bending units can be actuated to process a plurality of pipe sections at the same time, and wherein all of said processing units

can be actuated to process one single pipe section at least approximately at the same time.

31. The device as in claim 25, further comprising a heating section and a separating unit wherein said at least one carriage assembly is disposed after said separating unit.

32. The device as in claim 31, wherein said at least one carriage assembly is a tandem transport carriage having two supports for the pipe section, and wherein said transport carriage is CNC controlled.

33. The device as in claim 32, wherein said transport carriage further comprises heat insulation facilities, to avoid cooling the heated pipe sections to be transported.

34. The device as in claim 33 wherein said transport carriage can move to at least one take-over position.

35. The device as in claim 34, further comprising gripping tools which are heat insulated, coolable and heatable.

36. The device as in claim 1, further comprising shaping tools configured as transfer units which are in position to pass each pipe section on to a buffer or transport system once the shaping process has been completed.

37. The apparatus as in claim 36, wherein said processing stations have double bending units.

38. The apparatus as in claim 37, wherein said double bending units are a variable distance away from each other and wherein said two bending units are located so that they can be swivelled in relation to each other.